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CS203 Computer Organization

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Project 1 Manual

Project 1 is composed of a three-program tool chain. This manual will describe the order in which programs should be called and how to use the main methods on the terminal.

Program 1: Assembler

Input: "AssemblyCode.as"

Output: "AssemblyCode.o" in the working directory

Command line usage:

java LaunchAssembler "AssemblyCode.as"

After running the program, check the Assembler directory for the file.

Program 2: CPU_Emulator

Input: "AssemblyCode.o" "true/false"

*Note: If "AssemblyCode.o" is somehow not in this directory, copy the file over from the Assembler directory.

Output: A GUI allowing the user to control a simulation

Command line usage:

java LaunchCPU "AssemblyCode.o" Boolean

Pass "true" to Boolean value for noisy mode. Else, pass "false".

Program 3: Viewer

Input: String, Boolean, int, int

String is the name of the image file you would like to view. Make sure this file is in the "Viewer" directory. Boolean is either "true" for viewing the memory in hexadecimal, or "false" for binary.

The first int is the starting position in memory you'd like to view. This int must be in hexadecimal and divisible by 4. This int must be at least 0 and no greater than the second int.

The second int is the ending position in memory you'd like to view. This int must be in hexadecimal and divisible by 4. This int must be at least the first int and no greater than the maximum memory size.

Output: A GUI allowing the user to examine arbitrary memory.

Command line usage:

java LaunchVisualizer String, Boolean, int, int

Example: java LaunchVisualizer "AssemblyCode.o" "true" 4 c